



July 21, 2005

3888.01

Humboldt County Department of Health and Human Services
Division of Environmental Health
100 H Street, Suite 100
Eureka, California 95501

Attention: Mr. Mark Verhey

Subject: Groundwater Monitoring Report; Second Quarter 2005
Blue Lake Market: 410 Railroad Avenue, Blue Lake, California
LOP No. 12229

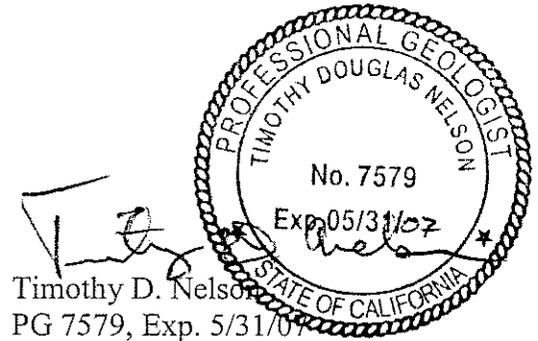
Dear Mr. Verhey:

LACO ASSOCIATES (LACO) is pleased to present to the Humboldt County Division of Environmental Health (HCDEH) the results of groundwater monitoring for the second quarter of 2005 on behalf of Pat Folkins.

Please call or email if you have any questions or concerns.

Sincerely,
LACO ASSOCIATES

Caroline Levenda
Staff Geologist



Timothy D. Nelson
PG 7579, Exp. 5/31/07

CJL:cs

Attachments

cc: Pat Folkins, Blue Lake Market

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GROUNDWATER MONITORING REPORT

SECOND QUARTER 2005

Former Blue Lake Market
 410 Railroad Avenue, Blue Lake, California
 LOP No. 12229; LACO Project No. 3888.01

INTRODUCTION

Field activities were conducted concurrently with SHN Consulting Engineers and Geologists (SHN) of Eureka, California on June 1, 2005, in accordance with generally accepted practices at this or similar locations. Please refer to Table A below for the current groundwater monitoring regime and to LACO's *Standard Operating Procedures*, on file at your office, for details. A location and site map are provided as Figures 1 and 2, respectively. A key to abbreviations is provided in Attachment 1. Groundwater monitoring data and laboratory analytical results from the concurrent sampling of the Blue Lake Market monitoring wells was provided by SHN and is included as Attachment 2.

SITE CHRONOLOGY

- 1990: 550-gallon Underground Storage Tank (UST) removed from the site.
- December 1994: Three monitoring wells and five temporary borings installed.
- July 2001: Five temporary soil borings installed.
- 1994 to present: Groundwater monitoring conducted.

Table A: Sampling Event for June 1, 2005

MONITORING WELL ID	SCREENED INTERVAL (feet)	DTW (feet)	PURGE METHOD	WATER QUALITY PARAMETERS	ANALYTICALS		SAMPLING SCHEDULE
					ORGANICS	INORGANICS	
MW1	5-15	6.47	DHP	pH, T, ECw, ORP, DO	TPH _g , BTEX, MTBE	NA	Quarterly
MW2	4-14	7.62					
MW3	5-15	8.09	NA	NA	NA	NA	DTW Only

HYDRAULIC GRADIENT AND HYDROGEOLOGY

The hydrogeology of the site has been characterized by the presence of interbedded silty clays, clayey silts, and clayey silts with sands. The aquifer hydraulic gradient has historically been in the southern direction. For the current period, the hydraulic gradient, using monitoring wells MW1, MW2, and MW3, was determined to have a S12°W trend and a 2.37 percent slope. The hydraulic gradient is consistent with historical gradient data, which generally trends in the

southern direction.

The potentiometric surface generated using the hydraulic heads of the LACO and SHN monitoring wells, and the groundwater gradient calculated for this sampling event, are illustrated in Figure 3. Current and historic hydraulic head data are presented in Table 2, current and historic hydraulic gradient in Table 1, and a copy of the field sampling data sheets is included as Attachment 3.

LABORATORY RESULTS

Laboratory analytical results from the June 1, 2005, quarterly sampling event are included below in Table B. Current and historical groundwater analytical data are included in Table 2, and copies of the laboratory analytical reports for this reporting period are included as Attachment 4.

WELL	TPHg	Benzene ($\mu\text{g/l}$)	Toluene ($\mu\text{g/l}$)	Ethylbenzene ($\mu\text{g/l}$)	Xylenes ($\mu\text{g/l}$)	MTBE ($\mu\text{g/l}$)
MW1	2,600	27	ND<30	18	10	ND<80
MW2	970	1.1	ND<15	9.0	21.1	ND<3.0
MW3 (sample collected by SHN)	10,000	120	480	340	820	NA

DISCUSSION OF GROUNDWATER RESULTS

The analytical results for the June 1, 2005, quarterly sampling event indicate the presence of Total petroleum hydrocarbons as gasoline (TPHg) in groundwater samples taken from monitoring wells MW1, MW2, and MW3 at concentrations above the California Regional Water Quality Control Board (CRWQCB) water quality objective (WQO) of 50 $\mu\text{g/L}$. The laboratory noted that the gasoline components for groundwater samples from monitoring wells MW1 and MW2 included peaks in the gasoline range. Benzene, ethylbenzene, and total xylenes were detected in groundwater samples taken from monitoring wells MW1 and MW2 at concentrations above the CRWQCB WQO for benzene of 1 $\mu\text{g/L}$, and below the CRWQCB WQOs for ethylbenzene and total xylenes of 29 $\mu\text{g/L}$ and 42 $\mu\text{g/L}$, respectively. Sampling monitoring locations MW1 and MW2 do not exhibit significant benzene, toluene, ethylbenzene, and xylene (BTEX) concentrations, indicating older petroleum hydrocarbons.

The groundwater sample from monitoring well MW3 was collected by SHN. BTEX was detected in the groundwater sample from monitoring well MW3 above the CRWQCB WQOs for each component of BTEX. The laboratory also noted that the groundwater sample taken from monitoring well MW3 appears to be similar to gasoline, but certain peaks are not of the fresh gasoline standard. These comments indicate that the site contains older fuel range material that is weathered and degraded. Additional laboratory notes are included in the case narrative of the laboratory analytical results found in Attachment 4.

CONCLUSIONS

Groundwater parameters including laboratory analytical results, groundwater elevations, and hydraulic gradient are consistent with that of previous monitoring events.

RECOMMENDATIONS

- The next quarterly groundwater monitoring event is scheduled for September 2005.
- The approved *Interim Remedial Action Plan and Supplemental Boring Installation Workplan* dated November 2004 is presently in the permitting process.

LIST OF FIGURES, TABLES, AND ATTACHMENTS

Figure 1: Location Map

Figure 2: Site Map

Figure 3: Hydraulic Gradient Map (June 1, 2005)

Table 1: Historic Hydraulic Gradient Data

Table 2: Monitoring Well Data and Groundwater Analytical Results

Attachment 1: Key to Abbreviations

Attachment 2: Groundwater Sampling: Field Data Sheets

Attachment 3: Laboratory Analytical Report

Attachment 4: SHN Field Data Sheets and Laboratory Report

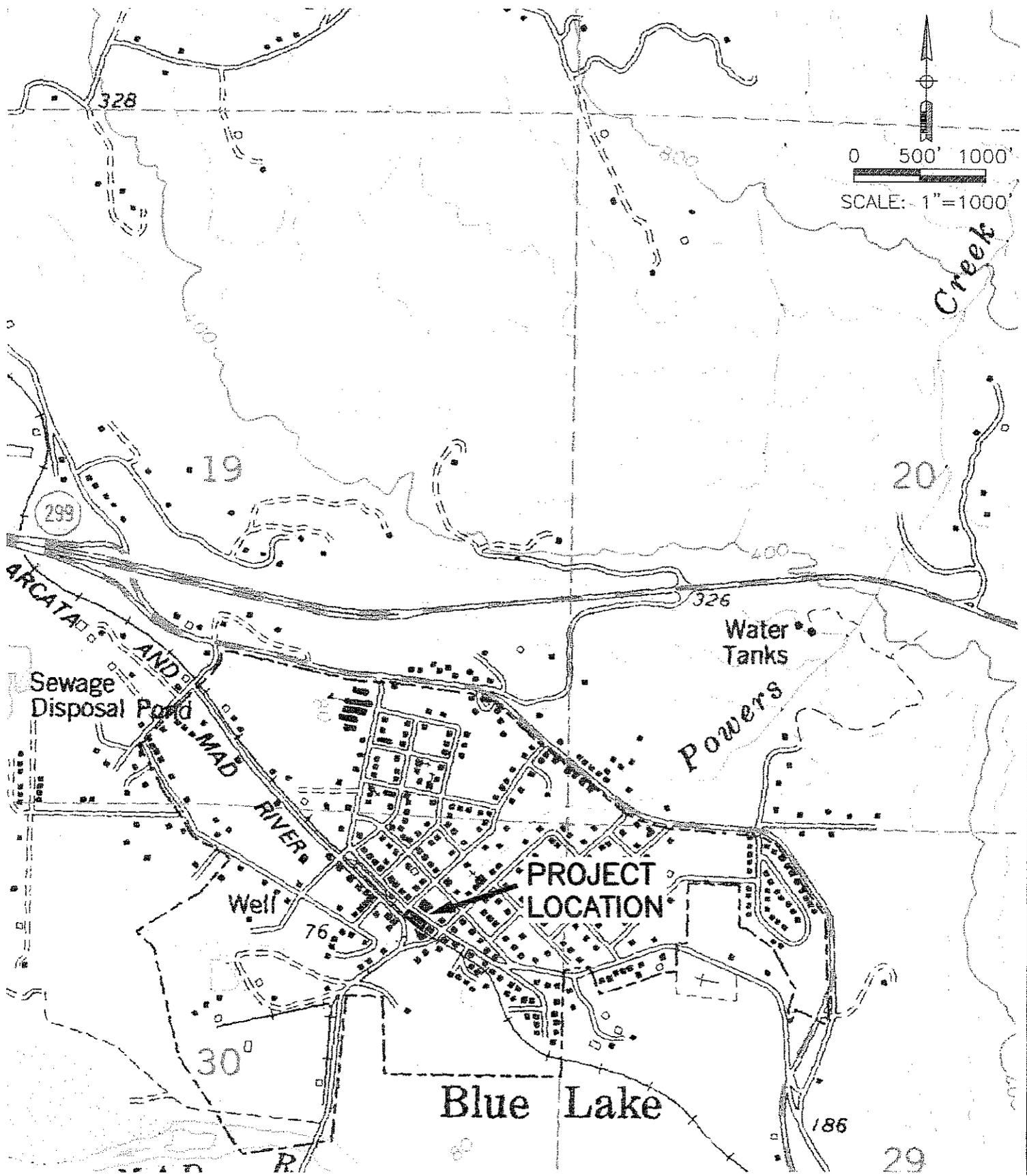


LACO ASSOCIATES
CONSULTING ENGINEERS
21 W 4TH ST. EUREKA, CA 95501 (707)443-5054

PROJECT GROUNDWATER MONITORING REPORT
CLIENT PAT FOLKINS
LOCATION BLUE LAKE MARKET
LOCATION MAP

BY BAB
DATE 6/20/05
CHECK [initials]
SCALE 1"=1000'

FIGURE 1
JOB NO. 3888.01





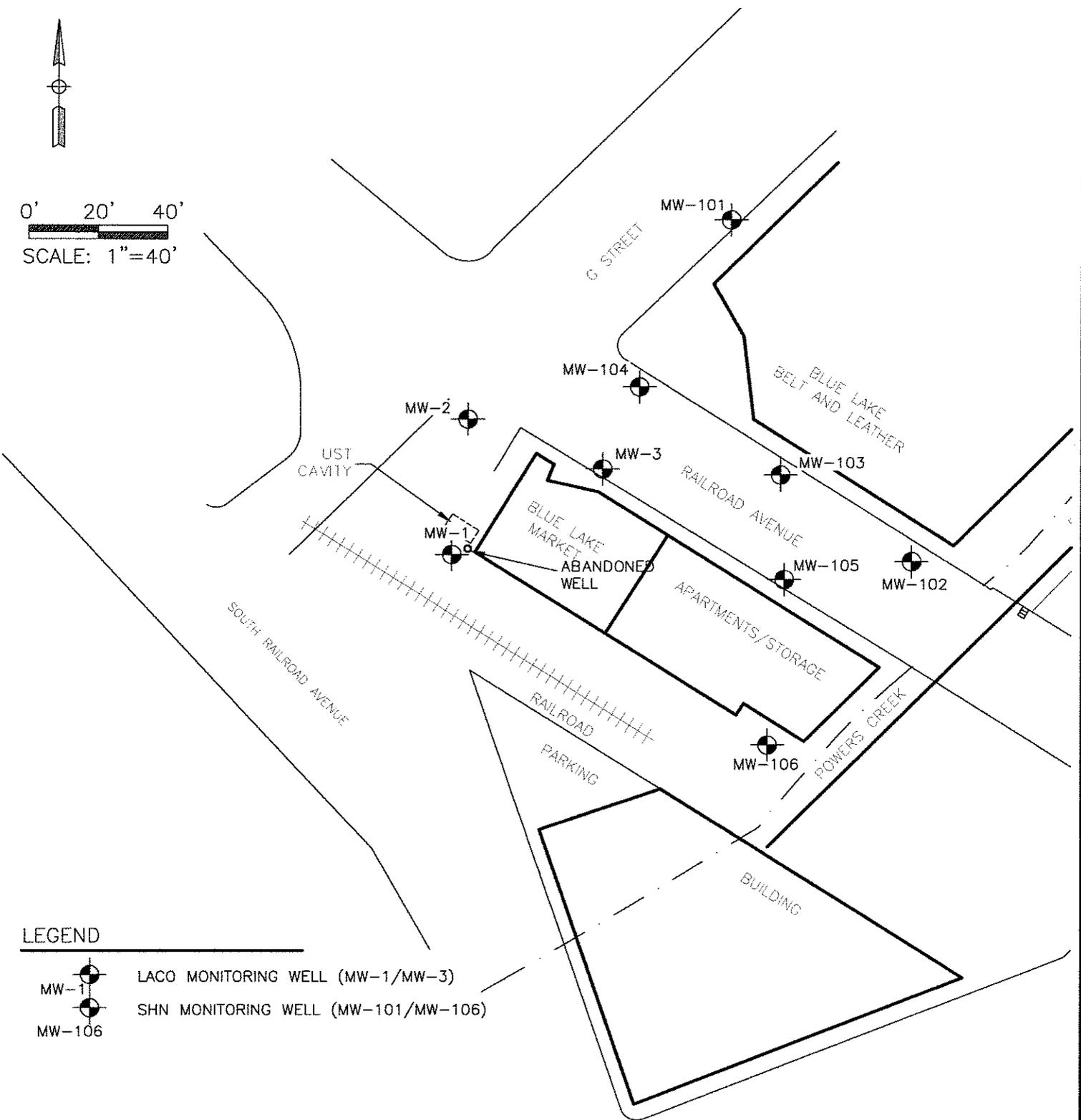
LACO ASSOCIATES
CONSULTING ENGINEERS

21 W 4TH ST. EUREKA, CA 95501 (707)443-5054

PROJECT	GROUNDWATER MONITORING REPORT	BY	BAB	FIGURE	2
CLIENT	PAT FOLKINS	DATE	6/20/05	JOB NO.	3888.01
LOCATION	BLUE LAKE MARKET	CHECK	✓	SCALE	1"=40'
SITE MAP					



0' 20' 40'
SCALE: 1"=40'



LEGEND

-  LACO MONITORING WELL (MW-1/MW-3)
-  SHN MONITORING WELL (MW-101/MW-106)
-  MW-106

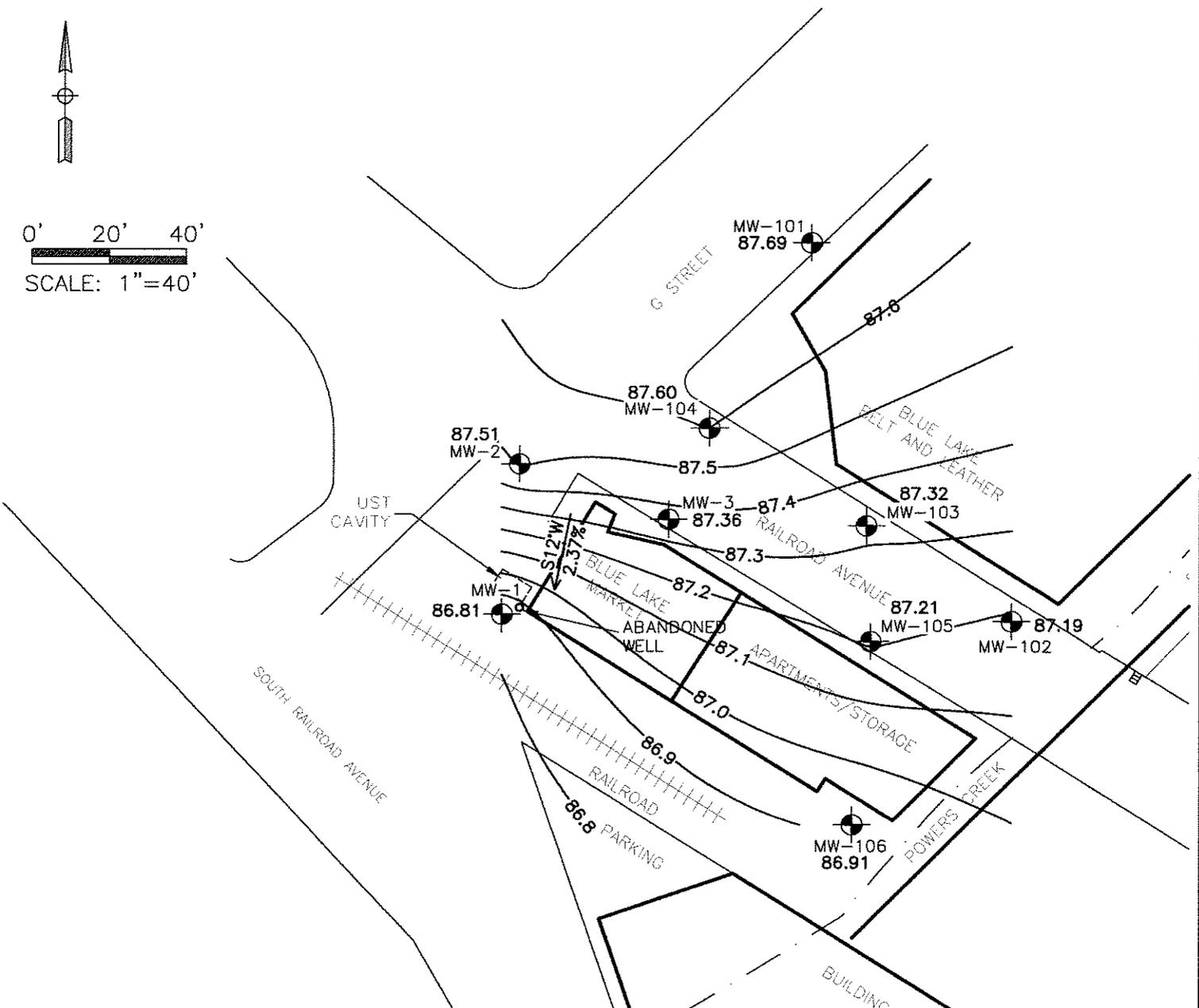


LACO ASSOCIATES
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21 W 4TH ST. EUREKA, CA 95501 (707)443-5054

PROJECT	GROUNDWATER MONITORING REPORT	BY	BAB	FIGURE	3
CLIENT	PAT FOLKINS	DATE	6/20/05		
LOCATION	BLUE LAKE MARKET	CHECK	TJ	JOB NO.	3888.01
HYDRAULIC GRADIENT MAP (6/1/05)			SCALE	1"=40'	



0' 20' 40'
SCALE: 1"=40'



LEGEND

- LACO MONITORING WELL (MW-1/MW-3)
- SHN MONITORING WELL (MW-101/MW-106)
- MW-106

87.4
EQUIPOTENTIAL LINES
(Feet, NAVD 88)

S12°W 2.37%
HYDRAULIC GRADIENT

GRADIENT BASED ON
THREE-POINT CALCULATION
USING MW1, MW2, & MW3

TABLE 1: HISTORIC HYDRAULIC GRADIENT DATA

Blue Lake Market

410 Railroad Avenue, Blue Lake

LOP No. 12229; LACO Project No. 3888.01

Date	Flow Direction	Gradient Slope
12/29/1994	SSE	1.90%
1/12/1995	SSE	9.50%
2/27/1995	SW	3.40%
3/22/1995	SW	3.50%
4/12/1995	S	1.90%
5/8/1995	SSW	2.00%
6/6/1995	SSW	2.10%
8/11/1995	SSE	3.10%
10/31/1995	SSE	3.50%
12/14/1995	SSE	2.10%
1/15/1996	SSE	1.00%
4/5/1996	SSW	1.90%
8/2/1996	SSE	2.20%
5/2/1997	S	1.90%
8/15/1997	S	0.80%
5/13/1998	S	1.90%
5/14/1999	SSW	1.60%
8/10/1999	SSE	0.90%
12/2/1999	SSW	1.90%
3/1/2000	S	1.52%
6/1/2000	SSW	1.59%
9/14/2000	S	3.07%
12/01/00	SE	8.30%
03/01/01	SW	1.20%
06/04/01	SW	2.10%
09/07/01	SW	2.50%
12/03/01	S	2.00%
03/13/02	SW	1.60%
06/05/02	SW	1.70%
09/03/02	SE	2.61%
01/02/03	SE	2.30%
03/03/03	---	---
06/02/03	S3E	1.80%
09/11/03	S14E	1.80%
12/01/03	S42E	1.29%
12/01/03	S22E	1.20%
03/03/04	S11E	1.45%
06/09/04	S17E	1.69%
09/02/04	N52W	1.19%
12/01/04	S2W	1.58%
03/01/05	S1E	1.27%
06/01/05	S12W	2.37%

TABLE 2: MONITORING WELL DATA AND GROUNDWATER ANALYTICAL RESULTS

Blue Lake Market
 410 Railroad Avenue, Blue Lake, CA
 LOP No. 12229, LACO Project No. 3888.01

WELL/ Sample Date	Groundwater Measurements			Analytical Results						FOOT NOTES	
	Well Head Elevation (feet msl)	Hydraulic Head (feet msl)	Depth to Water (feet)	TPHg (µg/l)	Benzene (µg/l)	Toluene (µg/l)	Ethylbenzene (µg/l)	Xylenes (µg/l)	MTBE (µg/l)		
MW-1											
12/29/1994	89.45	84.44	5.01	---	---	---	---	---	---	---	
1/12/1995		85.35	4.10	2,000	53	16	42	49	---	---	
2/27/1995		85.22	6.23	---	---	---	---	---	---	---	
3/22/1995		82.97	6.48	---	---	---	---	---	---	---	
4/12/1995		83.59	5.86	1,100	40	25	49	59	---	---	
5/8/1995		83.11	6.34	---	---	---	---	---	---	---	
6/6/1995		82.60	6.85	---	---	---	---	---	---	---	
8/11/1995		78.99	10.46	---	---	---	---	---	---	---	
10/31/1995		77.30	12.15	4,100	280	37	63	46	---	---	
12/14/1995		84.69	4.76	---	---	---	---	---	---	---	
1/15/1996		84.97	4.48	---	---	---	---	---	---	---	
4/5/1996		83.79	5.66	4,200	180	180	230	370	ND <100	2	
8/2/1996		78.54	10.91	---	---	---	---	---	---	---	
5/2/1997		83.39	6.06	3,900	170	50	120	105	ND <100	1,2	
8/15/1997		78.20	11.25	4,700	610	75	88	81	ND <100	1,2	
5/13/1998		82.71	6.74	810	25	5	33	16	ND <25	1,2	
5/14/1999		82.81	6.64	2,400	220	38	96	57	97	1	
8/10/1999		78.45	11.00	6,800	850	110	470	298	ND <200	1,2	
12/2/1999		84.40	5.05	320	41	4.2	15	4.9	ND <40	2	
3/1/2000		84.34	5.11	5,200	270	28	45	36	ND <80	1,2	
6/1/2000		82.81	6.64	5,300	330	85	250	183	ND <200	1,2,4	
9/13/2000		77.31	12.14	4,600	690	37	110	25	ND <140	1,2	
12/1/2000		82.00	7.45	7,900	410	53	210	79	ND <200	1,3	
3/1/2001		83.05	6.40	970	88	12	41	20	ND <50	1,2	
6/4/2001		80.39	9.06	3,700	210	17	160	49	ND <1.3	2	
9/7/2001		77.35	12.10	3,100	690	30	53	37	ND <1.0	1	
12/3/2001		84.96	4.49	71	ND <0.50	ND <0.50	ND <0.50	ND <0.50	ND <1.0	1,4	
3/13/2002		84.52	4.93	420	11	ND <5.0	5.4	3.8	ND <27	1,2	
6/5/2002		81.00	8.45	2,400	63	32	49	39	ND <70	1,2	
Monitoring well top of casings resurveyed 7/29/02											
9/3/2002	93.28	81.27	12.01	3,800	210	29	29	29	ND <110	1,2	
1/2/2003		88.72	4.56	400	ND <2.0	ND <4.0	ND <2.0	ND <0.50	ND <10	---	
3/3/2003		---	---	ND <50	ND <0.50	ND <0.50	ND <0.50	ND <0.50	ND <3.0	---	
6/2/2003		86.63	6.65	1,300	43	ND <30	29	9.6	ND <30	2, 5, 6	
9/11/2003		81.80	11.48	1,400	69	ND <14	ND <15	ND <8.0	ND <50	2	
12/1/2003		87.74	5.54	1,500	38	ND <20	19	14	ND <80	2, 5, 6	
3/3/2004		87.60	5.68	160	ND <0.50	ND <0.50	0.54	ND <0.50	ND <1.0	8	
6/9/2004		84.78	8.50	1,500	21	ND <28	33	11	ND <60	5, 6	
9/2/2004		81.55	11.73	1,800	37	ND <18	ND <5.0	ND <3.0	ND <40	2, 11	
12/1/2004		86.70	6.58	330	4.9	ND <4.0	1.7	0.91	ND <14	2, 11	
3/1/2005		87.32	5.96	990	ND <10	ND <15	ND <15	ND <7.0	ND <35	---	
6/1/2005		86.81	6.47	2,600	27	ND <30	18	10	ND <80	3, 6, 11	
MW-2											
12/29/1994	91.27	85.14	6.13	---	---	---	---	---	---	---	
1/12/1995		86.19	5.08	10,000	14	290	250	1,670	---	---	
2/27/1995		83.77	7.50	---	---	---	---	---	---	---	
3/22/1995		83.69	7.58	---	---	---	---	---	---	---	
4/12/1995		84.27	7.00	1,400	1.0	36	24	310	---	---	
5/8/1995		83.82	7.45	---	---	---	---	---	---	---	
6/6/1995		83.33	7.94	---	---	---	---	---	---	---	
8/11/1995		79.71	11.56	---	---	---	---	---	---	---	
10/31/1995		78.39	12.88	---	---	---	---	---	---	---	
12/14/1995		85.32	5.95	---	---	---	---	---	---	---	
1/15/1996		85.29	5.98	---	---	---	---	---	---	---	
4/5/1996		84.45	6.82	5,500	7.3	85	92	720	ND <5.0	---	
8/2/1996		79.22	12.05	---	---	---	---	---	---	---	
5/2/1997		84.00	7.27	5,800	12	95	170	860	ND <50	2	
8/15/1997		78.45	12.82	---	---	---	---	---	---	---	
5/13/1998		83.39	7.88	3,700	5.8	28	100	510	ND <25	1,2	
5/14/1999		83.46	7.81	9,800	21	210	380	1,910	13	1	
8/10/1999		78.73	12.54	2,400	15	40	67	306	ND <25	1,2	
12/2/1999		85.07	6.20	14,000	33	110	560	2,290	ND <50	---	
3/1/2000		84.84	6.43	7,000	8.6	86	160	820	ND <30	1,3	
6/1/2000		83.45	7.82	12,000	19	200	290	1,630	ND <30	1,3	
9/13/2000		78.46	12.81	---	---	---	---	---	---	---	
12/1/2000		85.23	6.04	9,800	19	120	220	1,010	ND <30	1,2	
3/1/2001		83.73	7.54	3,000	9	43	100	502	ND <30	3	
6/4/2001		81.22	10.05	2,300	5	8.4	35	229.3	ND <1.3	2	
9/7/2001		78.42	12.85	---	---	---	---	---	---	---	
12/3/2001		85.48	5.79	4,700	7.3	43	110	650	ND <1.0	1	
3/13/2002		84.83	6.44	15,000	29	290	640	2,600	ND <70	1,2	
6/5/2002		81.95	9.32	3,400	9.8	21	87	253	ND <11	1,2	
Monitoring well top of casings resurveyed 7/29/02											
9/3/2002	95.13	82.23	12.90	Insufficient water in the well to obtain a sample						---	---
1/2/2003		89.35	5.78	12,000	ND <25	97	470	1,910	ND <150	---	
3/3/2003		87.76	7.37	270	ND <0.50	ND <5.5	2.4	12.3	ND <3.0	---	
6/2/2003		87.32	7.81	860	0.76	6.6	28.0	75.0	ND <3.0	5	
9/11/2003		82.47	12.66	3,900	28	53	190	468	ND <35	2, 5	
12/1/2003		88.02	7.11	6,700	14	62	330	1,130	ND <30	3, 5	
3/3/2004		88.18	6.95	2,200	1.2	2.4	50	161	ND <1.0	5	
6/9/2004		85.70	9.43	970	ND <3.0	ND <10	22	58	ND <3.0	2, 3, 5	
9/2/2004		81.32	13.81	2,600	16	26	92	258	ND <30	3, 10	
12/1/2004		87.25	7.88	2,200	5	15	110	291	ND <30	3, 5	
3/1/2005		87.80	7.33	1,100	ND <2.0	10	19	55.9	ND <3.0	---	
6/1/2005		87.51	7.62	970	1.1	ND <15	9.0	21.1	ND <3.0	2, 11	

TABLE 2: MONITORING WELL DATA AND GROUNDWATER ANALYTICAL RESULTS

Blue Lake Market
 410 Railroad Avenue, Blue Lake, CA
 LOP No. 12229; LACO Project No. 3888.01

WELL/ Sample Date	Groundwater Measurements			Analytical Results						FOOT NOTES
	Well Head Elevation (feet msl)	Hydraulic Head (feet msl)	Depth to Water (feet)	TPH (µg/l)	Benzene (µg/l)	Toluene (µg/l)	Ethylbenzene (µg/l)	Xylenes (µg/l)	MTBE (µg/l)	
MW-3										
12/29/1994	91.61	84.66	6.95	---	---	---	---	---	---	
1/12/1995		85.38	6.23	21,000	130	590	170	770	---	
2/27/1995		84.63	6.98	---	---	---	---	---	---	
3/22/1995		84.53	7.08	---	---	---	---	---	---	
4/12/1995		83.98	7.63	14,000	130	430	360	2,080	---	
5/8/1995		83.61	8.00	---	---	---	---	---	---	
6/6/1995		83.09	8.52	---	---	---	---	---	---	
8/11/1995		79.18	12.43	---	---	---	---	---	---	
10/31/1995		77.59	14.02	---	---	---	---	---	---	
12/14/1995		84.89	6.72	---	---	---	---	---	---	
1/15/1996		85.09	6.52	---	---	---	---	---	---	
4/5/1996		84.31	7.30	11,000	120	330	260	980	ND <500	2
8/2/1996		78.73	12.88	---	---	---	---	---	---	
5/2/1997		83.64	7.97	7,600	46	110	79	459	ND <100	2
8/15/1997		78.18	13.43	7,600	160	440	160	630	ND <100	2
5/13/1998		83.16	8.45	9,100	76	280	280	1,390	ND <500	2
5/14/1999		83.25	8.36	5,200	74	160	180	640	140	
8/10/1999		78.42	13.19	14,000	130	310	130	510	ND <200	1,2
12/2/1999		84.32	7.29	6,400	87	340	200	810	ND <300	2
12/2/1999		Duplicate		5,200	80	260	210	710	ND <400	2
3/1/2000		84.36	7.25	7,200	64	390	180	730	ND <150	1,3
6/1/2000		83.25	8.36	7,100	73	330	170	630	ND <140	2
9/13/2000		77.68	13.93	---	---	---	---	---	---	
12/1/2000		83.54	8.07	13,000	79	290	230	720	ND <150	1,3
3/1/2001		83.43	8.18	8,500	78	330	200	680	ND <150	3
6/4/2001		80.70	10.91	4,800	14	14	68	103.4	ND <0.5	2
9/7/2001		77.41	14.20	---	---	---	---	---	---	
12/3/2001		84.83	6.78	9,900	24	52	210	454	ND <1.0	1
3/13/2002		84.28	7.33	---	---	---	---	---	---	
6/5/2002		81.38	10.23	8,100	28	ND <140	69	147	ND <250	1,2
9/3/2002	95.45	81.57	13.88	Monitoring well top of casings resurveyed 7/29/02						
1/2/2003		88.50	6.95	Insufficient water in the well to obtain a sample						
3/3/2003		87.50	7.95	23,000	390	2,700	810	4,000	ND <150	
6/2/2003		87.03	8.42	7,500	32	ND <180	62	415	ND <200	
9/11/2003		82.04	13.41	5,600	36	ND <110	86	180	ND <170	5, 6, 7
12/1/2003		87.62	7.83	9,900	230	210	120	680	ND <270	5, 6
3/3/2004		87.84	7.61	10,000	77	120	200	594	ND <400	5, 6
6/9/2004		85.06	10.39	4,500	7.5	12	48	206	ND <1.0	5
9/2/2004		81.77	13.68	4,800	ND <50	ND <100	55	89	ND <120	5, 6
12/1/2004		87.06	8.39	4,500	59	50	73	109	ND <140	5, 6
3/1/2005		87.61	7.84	7,500	120	340	180	554	ND <300	3, 4, 5
6/1/2005		87.36	8.09	11,000	160	690	370	1,010	---	5
6/1/2005 (SHN Results)		87.38	8.07	---	---	---	---	---	---	---
				10,000	120	480	340	820	---	---
MW-101										
3/1/2001	91.89	84.30	7.59	ND <50	ND <0.5	ND <0.5	ND <0.5	ND <0.5	ND <3.0	
6/4/2001		82.19	9.70	ND <50	ND <0.5	ND <0.5	ND <0.5	ND <0.5	ND <3.0	
9/4/2001		78.25	13.64	---	---	---	---	---	---	
12/3/2001		86.05	5.84	160	ND <0.5	ND <4.0	ND <0.5	ND <0.5	ND <3.0	1,2
3/1/2002		84.71	7.18	ND <50	ND <0.5	ND <0.5	ND <0.5	ND <0.5	ND <3.0	
6/5/2002		82.76	9.13	ND <50	ND <0.5	ND <0.5	ND <0.5	ND <0.5	ND <3.0	
9/3/2002	95.70	82.04	13.66	Monitoring well top of casings resurveyed 7/29/02						
12/2/2002		82.54	13.16	64	ND <0.5	ND <2.8	ND <0.5	ND <0.5	ND <3.0	
3/3/2003		88.32	7.38	ND <50	ND <0.5	ND <2.8	ND <0.5	ND <0.5	ND <3.0	
6/2/2003		87.89	7.81	ND <50	ND <0.50	ND <0.50	ND <0.50	ND <0.50	ND <3.0	
9/11/2003		---	---	---	---	---	---	---	---	
12/1/2003		88.39	7.31	50	ND <0.50	ND <1.4	ND <0.50	ND <0.50	---	2, 8, 9
3/3/2004		89.10	6.60	ND <50	ND <0.50	ND <1.4	ND <0.50	ND <0.50	---	
6/1/2004		87.76	7.94	ND <50	ND <0.50	ND <0.50	ND <0.50	ND <0.50	---	
9/2/2004		82.30	13.40	90	ND <0.50	ND <3.0	ND <0.50	ND <0.50	---	2, 8
12/1/2004		87.74	7.96	No sample collected						
3/1/2005		87.90	7.80	ND <50	ND <0.50	ND <0.50	ND <0.50	ND <0.50	---	12
6/1/2005		87.69	8.01	ND <50	ND <0.50	ND <0.50	ND <0.50	ND <0.50	---	---
MW-102										
3/1/2001	91.19	83.27	7.92	ND <50	ND <0.5	ND <0.5	ND <0.5	ND <0.5	ND <3.0	
6/4/2001		80.76	10.43	ND <50	ND <0.5	ND <0.5	ND <0.5	ND <0.5	ND <3.0	
9/4/2001		77.51	13.68	ND <50	ND <0.5	ND <0.5	ND <0.5	ND <0.5	ND <3.0	
12/3/2001		84.36	6.83	ND <50	ND <0.5	ND <0.5	ND <0.5	ND <0.5	ND <3.0	
3/1/2002		83.63	7.56	ND <50	ND <0.5	ND <0.5	ND <0.5	ND <0.5	ND <3.0	
6/5/2002		81.32	9.87	ND <50	ND <0.5	ND <0.5	ND <0.5	ND <0.5	ND <3.0	
9/3/2002	94.99	81.26	13.73	Monitoring well top of casings resurveyed 7/29/02						
12/2/2002		81.78	13.21	ND <50	ND <0.5	ND <0.5	ND <0.5	ND <0.5	ND <3.0	
3/3/2003		87.37	7.62	ND <50	ND <0.5	ND <0.5	ND <0.5	ND <0.5	ND <3.0	
6/2/2003		86.97	8.02	ND <50	ND <0.50	ND <0.50	ND <0.50	ND <0.50	ND <3.0	
9/11/2003		---	---	---	---	---	---	---	---	
12/1/2003		87.34	7.65	ND <50	ND <0.50	ND <0.50	ND <0.50	ND <0.50	---	9
3/3/2004		87.76	7.23	ND <50	ND <0.50	ND <0.50	ND <0.50	ND <0.50	---	
6/1/2004		86.70	8.29	ND <50	ND <0.50	ND <0.50	ND <0.50	ND <0.50	---	
9/2/2004		81.56	13.43	ND <50	ND <0.50	ND <0.50	ND <0.50	ND <0.50	---	
12/1/2004		86.97	8.02	ND <50	ND <0.50	ND <0.50	ND <0.50	ND <0.50	---	
3/1/2005		87.33	7.66	ND <50	ND <0.50	ND <0.50	ND <0.50	ND <0.50	---	12
6/1/2005		87.19	7.80	ND <50	ND <0.50	ND <0.50	ND <0.50	ND <0.50	---	---

TABLE 2: MONITORING WELL DATA AND GROUNDWATER ANALYTICAL RESULTS
 Blue Lake Market
 410 Railroad Avenue, Blue Lake, CA
 LOP No. 12229; LACO Project No. 3888.01

WELL/ Sample Date	Groundwater Measurements			Analytical Results						FOOT NOTES
	Well Head Elevation (feet msl)	Hydraulic Head (feet msl)	Depth to Water (feet)	TPHg (µg/l)	Benzene (µg/l)	Toluene (µg/l)	Ethylbenzene (µg/l)	Xylenes (µg/l)	MTBE (µg/l)	
MW-103										
3/1/2001	91.57	83.36	8.21	2,900	27	37	35	63	ND<60	1,2
6/4/2001		80.86	10.71	3,200	42	ND<80	16	30.4	ND<30	1,2
9/4/2001		77.58	13.99	1,300	18	ND<40	8	5.4	ND<32	1,2
12/3/2001		84.58	6.99	5,700	150	160	95	219	ND<150	1,2
3/1/2002		83.68	7.89	5,700	100	170	83	380	ND<150	2
6/5/2002		81.36	10.21	3,900	25	ND<110	35	50	ND<80	1,2
				Monitoring well top of casings resurveyed 7/29/02						
9/3/2002	95.41	81.35	14.06	1,600	21	ND<35	11	7.0	ND<30	1,2
12/2/2002		81.91	13.50	5,700	280	110	190	336	ND<120	
3/3/2003		87.44	7.97	4,400	47	ND<200	74	229	---	
6/2/2003		87.03	8.38	2,400	14	ND<70	15	17.3	ND<30	3, 5, 6
9/11/2003		---	---	---	---	---	---	---	---	
12/1/2003		87.48	7.93	3,500	49	ND<90	48	58.6	---	8
3/3/2004		87.87	7.54	5,800	100	160	130	343	---	
6/1/2004		86.81	8.60	2,100	15	ND<110	32	40	---	
9/2/2004		81.68	13.73	1,800	36	18	24	28.8	---	5
12/1/2004		87.09	8.32	2,400	42	40	41	47.4	---	5
3/1/2005		87.50	7.91	3,700	58	82	67	125	---	5
6/1/2005		87.32	8.09	2,700	33	47	46	79	---	--
MW-104										
6/4/2001	91.48	81.54	9.94	17,000	260	320	40	1,510	ND<300	2
9/4/2001		77.81	13.67	9,800	120	ND<200	330	546	ND<400	2
12/3/2001		85.33	6.15	33,000	870	520	1,600	4,650	ND<900	1,2
3/1/2002		84.13	7.35	20,000	400	450	930	2,480	ND<650	2
6/5/2002		82.08	9.40	21,000	370	880	890	2,610	ND<600	2
				Monitoring well top of casings resurveyed 7/29/02						
9/3/2002	95.32	81.52	13.80	7,400	100	ND<200	270	361	ND<150	1,2
12/2/2002		82.31	13.01	13,000	260	210	630	1,191	ND<320	
3/3/2003		87.81	7.51	20,000	430	560	950	2,330	---	
6/2/2003		87.39	7.93	26,000	540	1,100	1,300	3,630	ND<600	6
9/11/2003		---	---	---	---	---	---	---	---	
12/1/2003		87.96	7.36	25,000	760	520	1,300	2,780	---	5
3/3/2004		88.56	6.76	21,000	400	460	1,000	2,010	---	
6/1/2004		87.27	8.05	26,000	500	680	1,200	2,420	---	
9/2/2004		82.03	13.29	3,700	55	49	140	168	---	5
12/1/2004		87.31	8.01	16,000	430	480	990	2,090	---	4, 5
3/1/2005		87.81	7.51	17,000	200	350	590	1,280	---	5
6/1/2005		87.60	7.72	13,000	130	230	490	1,010	---	--
MW-105										
6/4/2001	91.32	80.57	10.57	430	ND<0.5	ND<7.0	ND<1.2	ND<0.5	ND<3.0	1,2
9/4/2001		77.47	13.85	650	ND<4.0	ND<9.0	ND<1.5	ND<1.2	ND<13	1,2
12/3/2001		84.48	6.84	4,700	11	ND<40	18	9	ND<100	1,2,4
3/1/2002		83.63	7.69	260	1.7	ND<6.0	ND<0.50	ND<0.50	ND<6.0	1,2
6/5/2002		81.31	10.01	140	ND<0.50	ND<3.0	ND<0.50	ND<0.50	ND<3.0	1,2
				Monitoring well top of casings resurveyed 7/29/02						
9/3/2002	95.15	81.24	13.91	360	ND<0.50	ND<10	ND<1.0	ND<1.0	ND<3.0	1,2
12/2/2002		81.76	13.39	680	6.0	ND<11	2.1	0.82	ND<13	
3/3/2003		87.40	7.75	280	ND<1.5	ND<5.5	ND<1.0	ND<1.0	---	
6/2/2003		86.98	8.17	210	ND<0.50	ND<5.5	ND<0.50	ND<0.50	ND<3.0	2, 5
9/11/2003		---	---	---	---	---	---	---	---	
12/1/2003		87.39	7.76	1,500	ND<5.0	ND<40	3.8	1.60	---	2, 8
3/3/2004		87.80	7.35	390	ND<2.0	ND<17	0.93	0.53	---	
6/1/2004		86.71	8.44	210	ND<0.50	ND<0.50	ND<0.50	ND<0.50	---	
9/2/2004		81.54	13.61	210	ND<0.50	ND<9.0	ND<0.50	ND<0.50	---	2, 8
12/1/2004		87.00	8.15	590	ND<2.0	ND<18	1.3	0.73	---	2, 6, 8
3/1/2005		87.39	7.76	680	ND<2.5	ND<30	ND<2.0	ND<1.5	---	2, 6, 8
6/1/2005		87.21	7.94	510	1.7	9.8	0.50	0.57	---	--
MW-106										
3/1/2001	88.88	82.97	5.91	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<3.0	
6/4/2001		80.43	8.45	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<3.0	
9/4/2001		76.96	11.92	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<3.0	
12/3/2001		83.92	4.96	ND<50	ND<0.5	ND<1.5	ND<0.5	ND<0.5	ND<3.0	2
3/1/2002		83.29	5.59	ND<50	0.74	ND<0.50	ND<0.50	ND<0.50	ND<3.0	
6/5/2002		80.97	7.91	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<3.0	
				Monitoring well top of casings resurveyed 7/29/02						
9/3/2002	92.70	80.71	11.99	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<3.0	
12/2/2002		81.27	11.43	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<3.0	
3/3/2003		87.06	5.64	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<3.0	
6/2/2003		86.66	6.04	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<3.0	
9/11/2003		---	---	---	---	---	---	---	---	
12/1/2003		86.99	5.71	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	---	9
3/3/2004		87.46	5.24	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	---	
6/1/2004		86.43	6.27	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	---	
9/2/2004		81.05	11.65	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	---	
12/1/2004		86.72	5.98	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	---	
3/1/2005		87.08	5.62	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	---	12
6/1/2005		86.91	5.79	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	---	--

Reference NAVD 88. Elevations established 7/29/02 by R. Smith, LS using Caltrans HPGN monument "D CA 01 RB" North Arcata at Giuntoli & Hwy 101
 Hydraulic head data and laboratory analytical results from monitoring wells MW-101 through MW-106 are provided by SHN.

Attachment 1

KEY: LABORATORY ABBREVIATIONS AND NOTATIONS - MONITORING WELL DATA

Blue Lake Market
 410 Railroad Avenue, Blue Lake
 LOP No. 17779; LACO Project No. 3888.01

KEY TO ABBREVIATIONS		
AL	--	action limit; a non-enforceable California drinking water standard; shown in parentheses.
BTEX	--	Benzene; Toluene; Ethylbenzene; m,p- and o- Xylenes
CO ₂	--	Carbon dioxide
COC	--	Chain of custody
CRWQCB	--	California Regional Water Quality Control Board
DHP	--	Down-hole-pump (submersible pump)
DIPE	--	Di-isopropyl Ether
DO	--	Dissolved Oxygen
DTW	--	Depth-to-Water
ECw	--	Electrical Conductivity in water
ETBE	--	Ethyl Tertiary Butyl Ether
FP	--	Free Product
MCL	--	Maximum contaminant level, an enforceable California drinking water standard.
MTBE	--	Methyl Tertiary Butyl Ether
ND<50	--	non-detect at reporting limits shown
NOT	--	Sample not analyzed for parameter during current sampling event
ACTIVE	--	
ORP	--	Oxidation Reduction Potential
PCE	--	Perchloroethene same as tetrachloroethene
pH	--	Potential of hydrogen
SGC	--	Silica gel cleanup
T	--	Temperature
TAME	--	Tertiary Amyl Methyl Ether
TBA	--	Tertiary Butyl Alcohol
TBF	--	Tertiary Butyl Formate
Tot	--	Taste and odor threshold, a non-enforceable California drinking water standard.
TPHg	--	Total Petroleum Hydrocarbons as Gasoline
µg/L	--	Micro grams per liter (parts per billion)
--	--	Not analyzed or not available

Note: Not all abbreviations in this key are used in this report.

¹ The laboratory noted that the sample did not have typical pattern of fresh gasoline.

All gasoline results reported represent the amount of material in the gasoline range of molecular weights only.

² The laboratory noted that some reporting limits was raised due to matrix interference.

³ The laboratory noted that some results were reported ND with a dilution due to matrix interference.

⁴ The laboratory noted that the surrogate for the sample was above the upper acceptance limit due to matrix interference.

⁵ The laboratory noted that the sample is similar to gasoline but certain peak ratios are not that of a fresh gasoline standard. The reported results represent the amount of material in the gasoline range.

⁶ The laboratory noted that the sample was diluted and the reporting limits were raised additionally due to matrix interference.

⁷ The laboratory noted that the surrogate for the sample could not be quantified due to a large amount of early eluting material.

⁸ The laboratory noted that the sample did not present a peak pattern consistent with that of gasoline. The reported results represent the amount of material in the gasoline range.

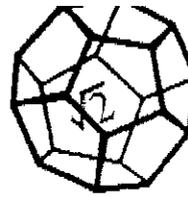
⁹ The laboratory noted that the surrogate for the sample was reported as not quantifiable (NQ) due to an auto-injector malfunction.

¹⁰ The laboratory noted that the sample was initially analyzed within the 14 day holding time, and additional dilutions for some analytes were required and were analyzed 1 day outside of the holding time.

¹¹ The laboratory noted that the sample includes the reported gasoline components in addition to other peaks in the gasoline range.

¹² The laboratory noted that the surrogate recoveries were below the lower acceptance limits for the sample. The response of the reporting limit standard was such that the analytes would have been detected even with the low recoveries; therefore the data were accepted.

Attachment 2



**NORTH COAST
LABORATORIES LTD.**

June 14, 2005

SHN Consulting Engineers and Geologists
812 West Wabash Avenue
Eureka, CA 95501

Order No.: 0506009
Invoice No.: 50686
PO No.:
ELAP No. 1247-Expires July 2006

Attn: Mike Foget

RE: 097309, Blue Lake Belting and Leather

SAMPLE IDENTIFICATION

Fraction	Client Sample Description
01A	MW-106
02A	MW-101
03A	MW-102
04A	MW-105
05A	MW-103
06A	MW-3
07A	MW-104

ND = Not Detected at the Reporting Limit
Limit ≠ Reporting Limit
All solid results are expressed on a wet-weight basis unless otherwise noted.

REPORT CERTIFIED BY

Laboratory Supervisor(s)

QA Unit

Jesse G. Chaney, Jr.
Laboratory Director

North Coast Laboratories, Ltd.

Date: 14-Jun-05

CLIENT: SHN Consulting Engineers and Geologists
Project: 097309, Blue Lake Belting and Leather
Lab Order: 0506009

CASE NARRATIVE

TPH as Gasoline:

Samples MW-3 and MW-104 appear to be similar to gasoline but certain peak ratios are not that of a fresh gasoline standard. The reported results represent the amount of material in the gasoline range.

The gasoline values for samples MW-105 and MW-103 include the reported gasoline components in addition to other peaks in the gasoline range.

Date: 14-Jun-05
 WorkOrder: 0506009

ANALYTICAL REPORT

Client Sample ID: MW-106
 Lab ID: 0506009-01A

Received: 6/1/05

Collected: 6/1/05 11:40

Test Name: BTEX

Reference: EPA 5030/EPA 8021B

<u>Parameter</u>	<u>Result</u>	<u>Limit</u>	<u>Units</u>	<u>DF</u>	<u>Extracted</u>	<u>Analyzed</u>
Benzene	ND	0.50	µg/L	1.0		6/9/05
Toluene	ND	0.50	µg/L	1.0		6/9/05
Ethylbenzene	ND	0.50	µg/L	1.0		6/9/05
m,p-Xylene	ND	0.50	µg/L	1.0		6/9/05
o-Xylene	ND	0.50	µg/L	1.0		6/9/05
Surrogate: Cis-1,2-Dichloroethylene	95.7	85-115	% Rec	1.0		6/9/05

Test Name: TPH as Gasoline

Reference: EPA 5030/GCFID(LUFT)/EPA 8015B

<u>Parameter</u>	<u>Result</u>	<u>Limit</u>	<u>Units</u>	<u>DF</u>	<u>Extracted</u>	<u>Analyzed</u>
TPHC Gas (C6-C14)	ND	50	µg/L	1.0		6/9/05

Client Sample ID: MW-101
 Lab ID: 0506009-02A

Received: 6/1/05

Collected: 6/1/05 12:15

Test Name: BTEX

Reference: EPA 5030/EPA 8021B

<u>Parameter</u>	<u>Result</u>	<u>Limit</u>	<u>Units</u>	<u>DF</u>	<u>Extracted</u>	<u>Analyzed</u>
Benzene	ND	0.50	µg/L	1.0		6/9/05
Toluene	ND	0.50	µg/L	1.0		6/9/05
Ethylbenzene	ND	0.50	µg/L	1.0		6/9/05
m,p-Xylene	ND	0.50	µg/L	1.0		6/9/05
o-Xylene	ND	0.50	µg/L	1.0		6/9/05
Surrogate: Cis-1,2-Dichloroethylene	97.4	85-115	% Rec	1.0		6/9/05

Test Name: TPH as Gasoline

Reference: EPA 5030/GCFID(LUFT)/EPA 8015B

<u>Parameter</u>	<u>Result</u>	<u>Limit</u>	<u>Units</u>	<u>DF</u>	<u>Extracted</u>	<u>Analyzed</u>
TPHC Gas (C6-C14)	ND	50	µg/L	1.0		6/9/05

Date: 14-Jun-05

ANALYTICAL REPORT

WorkOrder: 0506009

Client Sample ID: MW-102

Received: 6/1/05

Collected: 6/1/05 12:50

Lab ID: 0506009-03A

Test Name: BTEX

Reference: EPA 5030/EPA 8021B

<u>Parameter</u>	<u>Result</u>	<u>Limit</u>	<u>Units</u>	<u>DF</u>	<u>Extracted</u>	<u>Analyzed</u>
Benzene	ND	0.50	µg/L	1.0		6/9/05
Toluene	ND	0.50	µg/L	1.0		6/9/05
Ethylbenzene	ND	0.50	µg/L	1.0		6/9/05
m,p-Xylene	ND	0.50	µg/L	1.0		6/9/05
o-Xylene	ND	0.50	µg/L	1.0		6/9/05
Surrogate: Cis-1,2-Dichloroethylene	93.1	85-115	% Rec	1.0		6/9/05

Test Name: TPH as Gasoline

Reference: EPA 5030/GCFID(LUFT)/EPA 8015B

<u>Parameter</u>	<u>Result</u>	<u>Limit</u>	<u>Units</u>	<u>DF</u>	<u>Extracted</u>	<u>Analyzed</u>
TPHC Gas (C6-C14)	ND	50	µg/L	1.0		6/9/05

Client Sample ID: MW-105

Received: 6/1/05

Collected: 6/1/05 13:25

Lab ID: 0506009-04A

Test Name: BTEX

Reference: EPA 5030/EPA 8021B

<u>Parameter</u>	<u>Result</u>	<u>Limit</u>	<u>Units</u>	<u>DF</u>	<u>Extracted</u>	<u>Analyzed</u>
Benzene	1.7	0.50	µg/L	1.0		6/9/05
Toluene	9.8	0.50	µg/L	1.0		6/9/05
Ethylbenzene	0.50	0.50	µg/L	1.0		6/9/05
m,p-Xylene	0.57	0.50	µg/L	1.0		6/9/05
o-Xylene	ND	0.50	µg/L	1.0		6/9/05
Surrogate: Cis-1,2-Dichloroethylene	98.1	85-115	% Rec	1.0		6/9/05

Test Name: TPH as Gasoline

Reference: EPA 5030/GCFID(LUFT)/EPA 8015B

<u>Parameter</u>	<u>Result</u>	<u>Limit</u>	<u>Units</u>	<u>DF</u>	<u>Extracted</u>	<u>Analyzed</u>
TPHC Gas (C6-C14)	510	50	µg/L	1.0		6/9/05

Date: 14-Jun-05

ANALYTICAL REPORT

WorkOrder: 0506009

Client Sample ID: MW-103

Received: 6/1/05

Collected: 6/1/05 14:00

Lab ID: 0506009-05A

Test Name: BTEX

Reference: EPA 5030/EPA 8021B

<u>Parameter</u>	<u>Result</u>	<u>Limit</u>	<u>Units</u>	<u>DF</u>	<u>Extracted</u>	<u>Analyzed</u>
Benzene	33	5.0	µg/L	10		6/9/05
Toluene	47	5.0	µg/L	10		6/9/05
Ethylbenzene	46	5.0	µg/L	10		6/9/05
m,p-Xylene	66	5.0	µg/L	10		6/9/05
o-Xylene	13	5.0	µg/L	10		6/9/05
Surrogate: Cis-1,2-Dichloroethylene	102	85-115	% Rec	10		6/9/05

Test Name: TPH as Gasoline

Reference: EPA 5030/GCFID(LUFT)/EPA 8015B

<u>Parameter</u>	<u>Result</u>	<u>Limit</u>	<u>Units</u>	<u>DF</u>	<u>Extracted</u>	<u>Analyzed</u>
TPHC Gas (C6-C14)	2,700	500	µg/L	10		6/9/05

Client Sample ID: MW-3

Received: 6/1/05

Collected: 6/1/05 14:50

Lab ID: 0506009-06A

Test Name: BTEX

Reference: EPA 5030/EPA 8021B

<u>Parameter</u>	<u>Result</u>	<u>Limit</u>	<u>Units</u>	<u>DF</u>	<u>Extracted</u>	<u>Analyzed</u>
Benzene	120	25	µg/L	50		6/10/05
Toluene	480	250	µg/L	500		6/9/05
Ethylbenzene	340	25	µg/L	50		6/10/05
m,p-Xylene	650	25	µg/L	50		6/10/05
o-Xylene	170	25	µg/L	50		6/10/05
Surrogate: Cis-1,2-Dichloroethylene	87.0	85-115	% Rec	500		6/9/05

Test Name: TPH as Gasoline

Reference: EPA 5030/GCFID(LUFT)/EPA 8015B

<u>Parameter</u>	<u>Result</u>	<u>Limit</u>	<u>Units</u>	<u>DF</u>	<u>Extracted</u>	<u>Analyzed</u>
TPHC Gas (C6-C14)	10,000	2,500	µg/L	50		6/10/05

Date: 14-Jun-05

ANALYTICAL REPORT

WorkOrder: 0506009

Client Sample ID: MW-104

Received: 6/1/05

Collected: 6/1/05 15:00

Lab ID: 0506009-07A

Test Name: BTEX

Reference: EPA 5030/EPA 8021B

<u>Parameter</u>	<u>Result</u>	<u>Limit</u>	<u>Units</u>	<u>DF</u>	<u>Extracted</u>	<u>Analyzed</u>
Benzene	130	25	µg/L	50		6/10/05
Toluene	230	25	µg/L	50		6/10/05
Ethylbenzene	490	25	µg/L	50		6/10/05
m,p-Xylene	870	500	µg/L	1,000		6/10/05
o-Xylene	140	25	µg/L	50		6/10/05
Surrogate: Cis-1,2-Dichloroethylene	104	85-115	% Rec	1,000		6/10/05

Test Name: TPH as Gasoline

Reference: EPA 5030/GCFID(LUFT)/EPA 8015B

<u>Parameter</u>	<u>Result</u>	<u>Limit</u>	<u>Units</u>	<u>DF</u>	<u>Extracted</u>	<u>Analyzed</u>
TPHC Gas (C6-C14)	13,000	2,500	µg/L	50		6/10/05

CLIENT: SHN Consulting Engineers and Geologists
Work Order: 0506009
Project: 097309, Blue Lake Belting and Leather

QC SUMMARY REPORT
 Method Blank

Sample ID	MB-6/8/05	Batch ID:	R35279	Test Code:	BTXEW	Units:	µg/L	Analysis Date	6/9/05 11:08:09 AM	Prep Date	
Client ID:		Run ID:	ORGC8_050608B	SeqNo:	509723						
Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	ND	0.50									
Toluene	ND	0.50									
Ethylbenzene	ND	0.50									
m,p-Xylene	ND	0.50									
o-Xylene	ND	0.50									
Cis-1,2-Dichloroethylene	0.880	0.10	1.00	0	88.0%	85	115	0			

Sample ID	MB-6/8/05	Batch ID:	R35277	Test Code:	TPHCGW	Units:	µg/L	Analysis Date	6/9/05 11:08:09 AM	Prep Date	
Client ID:		Run ID:	ORGC8_050608A	SeqNo:	509695						
Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPHC Gas (C6-C14)	ND	50									

Qualifiers: ND - Not Detected at the Reporting Limit
 S - Spike Recovery outside accepted recovery limits
 R - RPD outside accepted recovery limits
 B - Analyte detected in the associated Method Blank

North Coast Laboratories, Ltd.

Date: 14-Jun-05

CLIENT: SHN Consulting Engineers and Geologists
 Work Order: 0506009
 Project: 097309, Blue Lake Belting and Leather

QC SUMMARY REPORT
 Laboratory Control Spike

Sample ID	LCS-05374	Batch ID:	R35279	Test Code:	BTXEW	Units:	µg/L	Analysis Date	6/8/05 2:29:41 PM	Prep Date	
Client ID:		Run ID:	ORGC8_050608B	SeqNo:	509720						
Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	4.958	0.50	5.00	0	99.2%	85	115	0			
Toluene	5.024	0.50	5.00	0	100%	85	115	0			
Ethylbenzene	4.986	0.50	5.00	0	99.7%	85	115	0			
m,p-Xylene	10.01	0.50	10.0	0	100%	85	115	0			
o-Xylene	5.016	0.50	5.00	0	100%	85	115	0			
Cis-1,2-Dichloroethylene	1.04	0.10	1.00	0	104%	85	115	0			

Sample ID	LCS-05374	Batch ID:	R35279	Test Code:	BTXEW	Units:	µg/L	Analysis Date	6/8/05 3:05:07 PM	Prep Date	
Client ID:		Run ID:	ORGC8_050608B	SeqNo:	509721						
Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	4.875	0.50	5.00	0	97.5%	85	115	4.96	1.69%	15	
Toluene	4.945	0.50	5.00	0	98.9%	85	115	5.02	1.59%	15	
Ethylbenzene	4.912	0.50	5.00	0	98.2%	85	115	4.99	1.50%	15	
m,p-Xylene	9.846	0.50	10.0	0	98.5%	85	115	10.0	1.63%	15	
o-Xylene	4.948	0.50	5.00	0	99.0%	85	115	5.02	1.36%	15	
Cis-1,2-Dichloroethylene	1.15	0.10	1.00	0	115%	85	115	1.04	10.1%	15	

Sample ID	LCS-05375	Batch ID:	R35277	Test Code:	TPHCGW	Units:	µg/L	Analysis Date	6/8/05 4:16:05 PM	Prep Date	
Client ID:		Run ID:	ORGC8_050608A	SeqNo:	509692						
Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPHC Gas (C6-C14)	548.6	50	500	0	110%	81	126	0			

Qualifiers: ND - Not Detected at the Reporting Limit
 J - Analyte detected below quantitation limits
 S - Spike Recovery outside accepted recovery limits
 R - RPD outside accepted recovery limits
 B - Analyte detected in the associated Method Blank

CLIENT: SHN Consulting Engineers and Geologists

Work Order: 0506009

Project: 097309, Blue Lake Belting and Leather

QC SUMMARY REPORT

Laboratory Control Spike Duplicate

Sample ID: LCSD-05375 Batch ID: R35277 Test Code: TPHCGW Units: µg/L Analysis Date: 6/8/05 4:51:37 PM Prep Date

Client ID: Run ID: ORGC8_050608A SeqNo: 509693

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPHC Gas (C6-C14)	548.2	50	500	0	110%	81	126	549	0.0667%	15	

Qualifiers:

ND - Not Detected at the Reporting Limit
 J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
 R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

Attachment 3



gjd

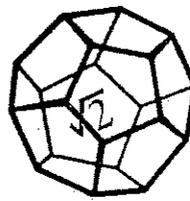
Project Name: **BLUE LAKE MARKET**
Project No.: **3888.01**
Date: **6-1-05**
Golbal ID No.: **T0602300170**
PM: **TDN**

Tech: **SJD**
Mob/Demob time: **1:50 / 1:25**
Travel time: **1.0**
Time on site: **11:30**
Time off site: **1:05**
Mileage: **34**

WELL No.:	MW1	MW2	MW3							
DIAMETER (in)	2.0	2.0	2.0							
SCREENED INTERVAL (ft)	5-15	4-14	5-15							
DEPTH TO WATER (ft)	6.47	7.62	8.09							
FIELD INTRINSICS	INITIAL	FINAL	INITIAL	FINAL	INITIAL	FINAL	INITIAL	FINAL	INITIAL	FINAL
	pH									
	TEMP (°C)									
	Ecw (µmhos)									
	ORP (mV)	-64	-49	-45	-31					
	DO (mg/L)	0.93	0.43	0.87	0.30					
	OTHER (units)	_____		_____						
PURGE	TIME	11:58	12:06	12:30	12:38					
	METHOD (DHP/CB/B)	DHP		DHP						
	RATE (Lpm)	0.22		0.20						
	VOLUME (L)	1.80		1.60						
	COLOR	CLEAR	CLEAR	CLEAR	CLEAR					
	ODOR	MED. SULFUR/RUBBER		LIGHT RUBBER/FISH						
	INTAKE DEPTH (FEET)	10.0		10.0						
SAMPLE	TIME	12:07		12:39						
	METHOD (DHP/CB/B)	DHP		DHP						
	ANALYTES	TPHg/BTEX		TPHg/BTEX		MEASURE ONLY				
	TOTAL DRAWDOWN (FEET)	0.55		0.52						
	REMARKS	_____		_____						
WELL CONDITION	ALL THREE BOLT HOLES STRIPPED		good		good					
WASTE DRUMS	ONE DOT DRUM ONSITE		SOIL 1/4 FULL							

DHP=DOWN HOLE PUMP CB=CHECK BALL B=BAILER FD=FIELD DUPLICATE MB=METHOD BLANK FF=FIELD FILTERED

Attachment 4



**NORTH COAST
LABORATORIES LTD.**

JUN 15 2005
JG

June 14, 2005

Pvt. cust. paying on pickup

DRG
TDN 6-15-05

Order No.: 0506005
Invoice No.: 50685
PO No.: TASK 3023
ELAP No. 1247-Expires July 2006

Attn: Pat Folkins

RE: 3888.01, BLUE LAKE MARKET

SAMPLE IDENTIFICATION

Fraction	Client Sample Description
01A	3888-MW1-W
02A	3888-MW2-W
03A	3888-QCTB-W

ND = Not Detected at the Reporting Limit
Limit = Reporting Limit
All solid results are expressed on a wet-weight basis unless otherwise noted.

REPORT CERTIFIED BY

Laboratory Supervisor(s)

QA Unit

Jesse G. Chaney, Jr.
Laboratory Director

North Coast Laboratories, Ltd.

Date: 14-Jun-05

CLIENT: Pvt. cust. paying on pickup
Project: 3888.01, BLUE LAKE MARKET
Lab Order: 0506005

CASE NARRATIVE

TPH as Gasoline:

The gasoline values for samples 3888-MW1-W and 3888-MW2-W include the reported gasoline components in addition to other peaks in the gasoline range.

BTEX:

Some reporting limits were raised for sample 3888-MW2-W due to matrix interference.

Sample 3888-MW1-W was diluted and the reporting limits raised additionally due to matrix interference.

Sample 3888-MW1-W was reported as ND with a dilution due to matrix interference.

Date: 14-Jun-05
WorkOrder: 0506005

ANALYTICAL REPORT

Client Sample ID: 3888-MW1-W
Lab ID: 0506005-01A

Received: 6/1/05

Collected: 6/1/05 0:00

Test Name: BTEX

Reference: EPA 5030/EPA 8021B

<u>Parameter</u>	<u>Result</u>	<u>Limit</u>	<u>Units</u>	<u>DF</u>	<u>Extracted</u>	<u>Analyzed</u>
MTBE	ND	80	µg/L	10		6/10/05
Benzene	27	5.0	µg/L	10		6/10/05
Toluene	ND	30	µg/L	10		6/10/05
Ethylbenzene	18	5.0	µg/L	10		6/10/05
m,p-Xylene	10	5.0	µg/L	10		6/10/05
o-Xylene	ND	5.0	µg/L	10		6/10/05
Surrogate: Cis-1,2-Dichloroethylene	102	85-115	% Rec	10		6/10/05

Test Name: TPH as Gasoline

Reference: EPA 5030/GCFID(LUFT)/EPA 8015B

<u>Parameter</u>	<u>Result</u>	<u>Limit</u>	<u>Units</u>	<u>DF</u>	<u>Extracted</u>	<u>Analyzed</u>
TPHC Gas (C6-C14)	2,600	500	µg/L	10		6/10/05

Client Sample ID: 3888-MW2-W
Lab ID: 0506005-02A

Received: 6/1/05

Collected: 6/1/05 0:00

Test Name: BTEX

Reference: EPA 5030/EPA 8021B

<u>Parameter</u>	<u>Result</u>	<u>Limit</u>	<u>Units</u>	<u>DF</u>	<u>Extracted</u>	<u>Analyzed</u>
MTBE	ND	3.0	µg/L	1.0		6/9/05
Benzene	1.1	0.50	µg/L	1.0		6/9/05
Toluene	ND	15	µg/L	1.0		6/9/05
Ethylbenzene	9.0	5.0	µg/L	10		6/9/05
m,p-Xylene	17	0.50	µg/L	1.0		6/9/05
o-Xylene	4.1	0.50	µg/L	1.0		6/9/05
Surrogate: Cis-1,2-Dichloroethylene	105	85-115	% Rec	1.0		6/9/05

Test Name: TPH as Gasoline

Reference: EPA 5030/GCFID(LUFT)/EPA 8015B

<u>Parameter</u>	<u>Result</u>	<u>Limit</u>	<u>Units</u>	<u>DF</u>	<u>Extracted</u>	<u>Analyzed</u>
TPHC Gas (C6-C14)	970	50	µg/L	1.0		6/9/05

Date: 14-Jun-05

WorkOrder: 0506005

ANALYTICAL REPORT

Client Sample ID: 3888-QCTB-W

Received: 6/1/05

Collected: 6/1/05 0:00

Lab ID: 0506005-03A

Test Name: BTEX

Reference: EPA 5030/EPA 8021B

<u>Parameter</u>	<u>Result</u>	<u>Limit</u>	<u>Units</u>	<u>DF</u>	<u>Extracted</u>	<u>Analyzed</u>
MTBE	ND	3.0	µg/L	1.0		6/9/05
Benzene	ND	0.50	µg/L	1.0		6/9/05
Toluene	ND	0.50	µg/L	1.0		6/9/05
Ethylbenzene	ND	0.50	µg/L	1.0		6/9/05
m,p-Xylene	ND	0.50	µg/L	1.0		6/9/05
o-Xylene	ND	0.50	µg/L	1.0		6/9/05
Surrogate: Cis-1,2-Dichloroethylene	98.6	85-115	% Rec	1.0		6/9/05

Test Name: TPH as Gasoline

Reference: EPA 5030/GCFID(LUFT)/EPA 8015B

<u>Parameter</u>	<u>Result</u>	<u>Limit</u>	<u>Units</u>	<u>DF</u>	<u>Extracted</u>	<u>Analyzed</u>
TPHC Gas (C6-C14)	ND	50	µg/L	1.0		6/9/05

North Coast Laboratories, Ltd.

Date: 14-Jun-05

QC SUMMARY REPORT

Method Blank

CLIENT: Pvt. cust. paying on pickup
Work Order: 0506005
Project: 3888.01, BLUE LAKE MARKET

Sample ID: MB-6/8/05 Batch ID: R35279 Test Code: BTXEW Units: µg/L Analysis Date: 6/9/05 11:08:09 AM Prep Date:
Client ID: ORGC8_050608B Run ID: 509723 SeqNo: 509723

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
MTBE	ND	3.0									
Benzene	ND	0.50									
Toluene	ND	0.50									
Ethylbenzene	ND	0.50									
m,p-Xylene	ND	0.50									
o-Xylene	ND	0.50									
Cis-1,2-Dichloroethylene	0.880	0.10	1.00	0	88.0%	85	115	0			

Sample ID: MB-6/8/05 Batch ID: R35277 Test Code: TPHCGW Units: µg/L Analysis Date: 6/9/05 11:08:09 AM Prep Date:
Client ID: ORGC8_050608A Run ID: 509695 SeqNo: 509695

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPHC Gas (C6-C14)	ND	50									

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantification limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

QC SUMMARY REPORT
Laboratory Control Spike

CLIENT: Pvt. cust. paying on pickup
Work Order: 0506005
Project: 3888.01, BLUE LAKE MARKET

Sample ID: LCS-05374 Batch ID: R35279 Test Code: BTXEW Units: µg/L Analysis Date: 6/8/05 2:29:41 PM Prep Date:
Client ID: ORGC8_050608B Run ID: ORGC8_050608B SeqNo: 509720

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec.	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
MTBE	41.11	3.0	40.0	0	103%	85	115	0			
Benzene	4.958	0.50	5.00	0	99.2%	85	115	0			
Toluene	5.024	0.50	5.00	0	100%	85	115	0			
Ethylbenzene	4.986	0.50	5.00	0	99.7%	85	115	0			
m,p-Xylene	10.01	0.50	10.0	0	100%	85	115	0			
o-Xylene	5.016	0.50	5.00	0	100%	85	115	0			
Cis-1,2-Dichloroethylene	1.04	0.10	1.00	0	104%	85	115	0			

Sample ID: LCSD-05374 Batch ID: R35279 Test Code: BTXEW Units: µg/L Analysis Date: 6/8/05 3:05:07 PM Prep Date:
Client ID: ORGC8_050608B Run ID: ORGC8_050608B SeqNo: 509721

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec.	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
MTBE	40.60	3.0	40.0	0	102%	85	115	41.1	1.25%	15	15
Benzene	4.875	0.50	5.00	0	97.5%	85	115	4.96	1.69%	15	15
Toluene	4.945	0.50	5.00	0	98.9%	85	115	5.02	1.59%	15	15
Ethylbenzene	4.912	0.50	5.00	0	98.2%	85	115	4.99	1.50%	15	15
m,p-Xylene	9.846	0.50	10.0	0	98.5%	85	115	10.0	1.63%	15	15
o-Xylene	4.948	0.50	5.00	0	99.0%	85	115	5.02	1.36%	15	15
Cis-1,2-Dichloroethylene	1.15	0.10	1.00	0	115%	85	115	1.04	10.1%	15	15

Sample ID: LCS-05375 Batch ID: R35277 Test Code: TPHCGW Units: µg/L Analysis Date: 6/8/05 4:16:05 PM Prep Date:
Client ID: ORGC8_050608A Run ID: ORGC8_050608A SeqNo: 509692

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec.	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPHC Gas (C6-C14)	548.6	50	500	0	110%	81	126	0			

Qualifiers: ND - Not Detected at the Reporting Limit S - Spike Recovery outside accepted recovery limits B - Analyte detected in the associated Method Blank
J - Analyte detected below quantitation limits R - RPD outside accepted recovery limits

QC SUMMARY REPORT
Laboratory Control Spike Duplicate

CLIENT: Pvt. cust. paying on pickup
Work Order: 0506005
Project: 3888.01, BLUE LAKE MARKET

Sample ID: LCSD-05375 Batch ID: R35277 Test Code: TPHCGW Units: µg/L Analysis Date: 6/8/05 4:51:37 PM Prep Date:

Client ID: ORGC8_050608A Run ID: 509693 SeqNo: 509693

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPHC Gas (C6-C14)	548.2	50	500	0	110%	81	126	549	0.0667%	15	

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

